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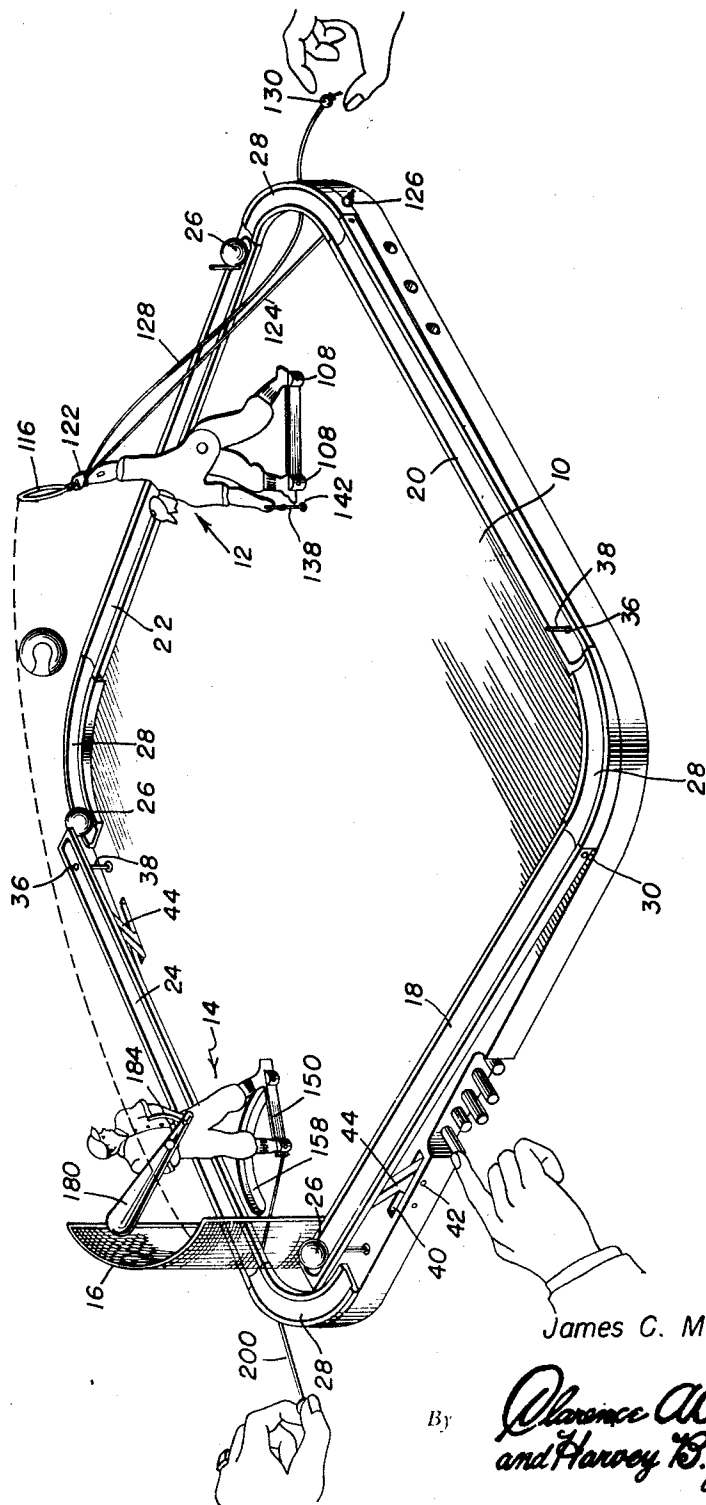
J. C. MITCHELL  
TABLE BASEBALL GAME

2,534,468

Filed March 25, 1947

5 Sheets-Sheet 1

Fig. 1.



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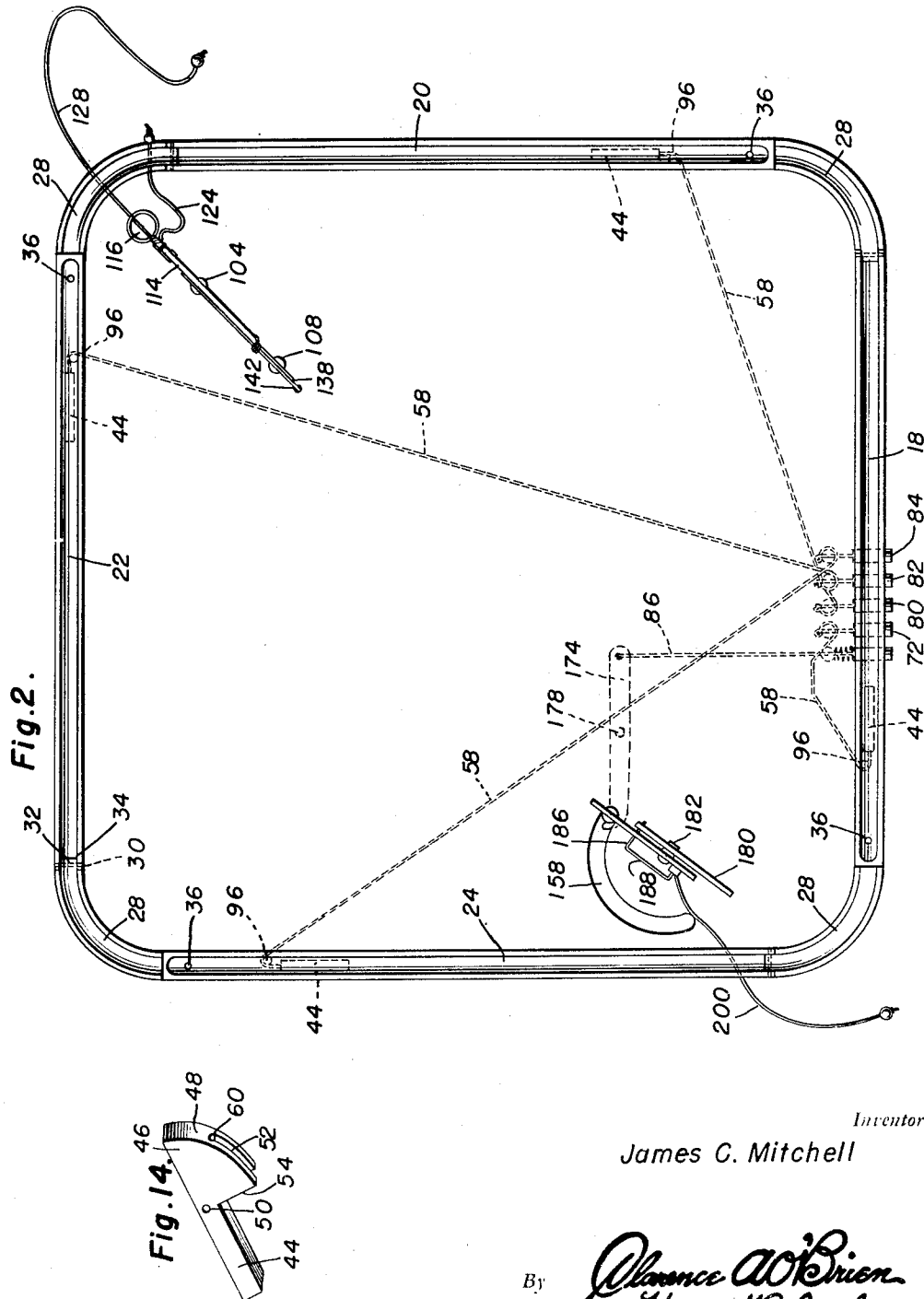
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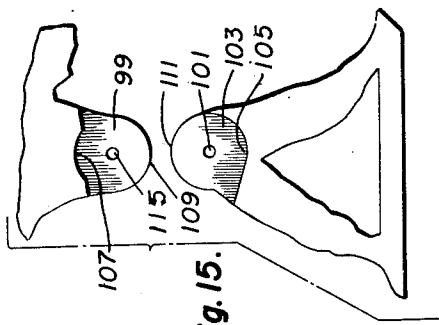
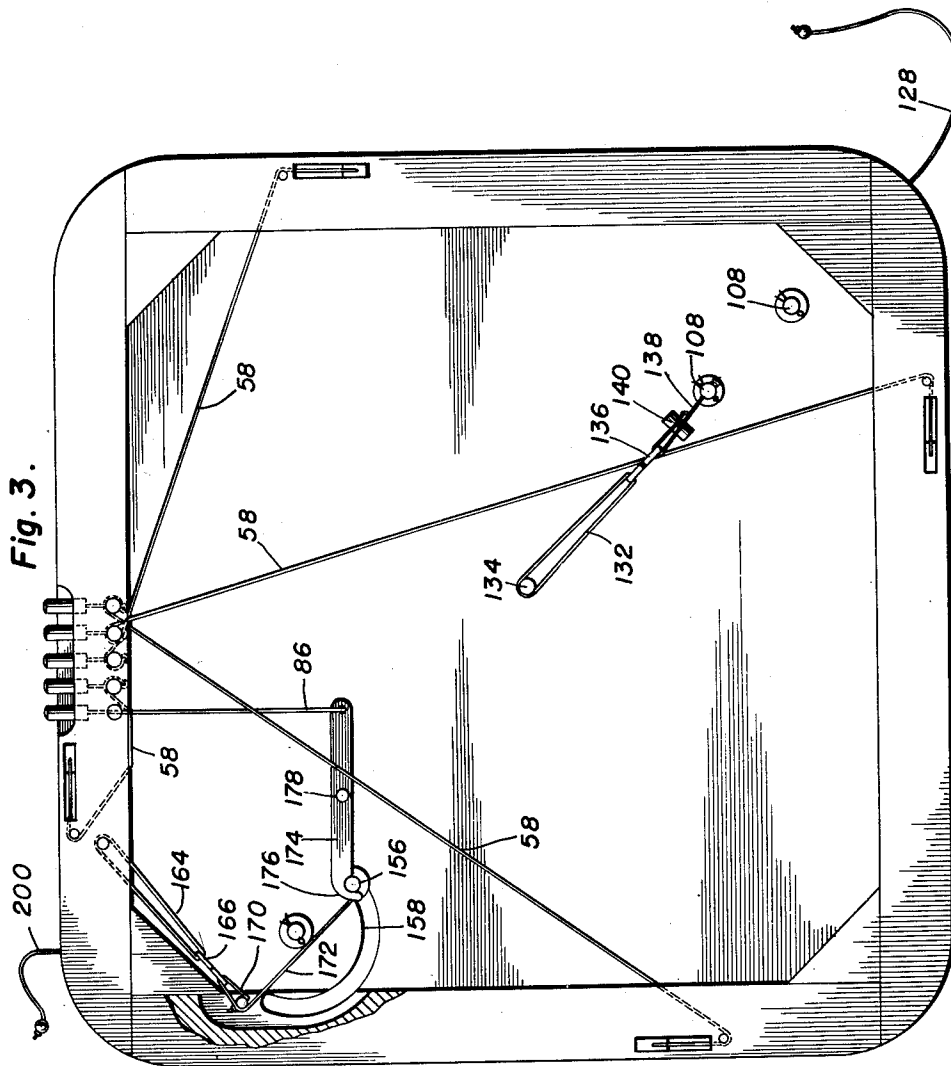
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Fig. 4.

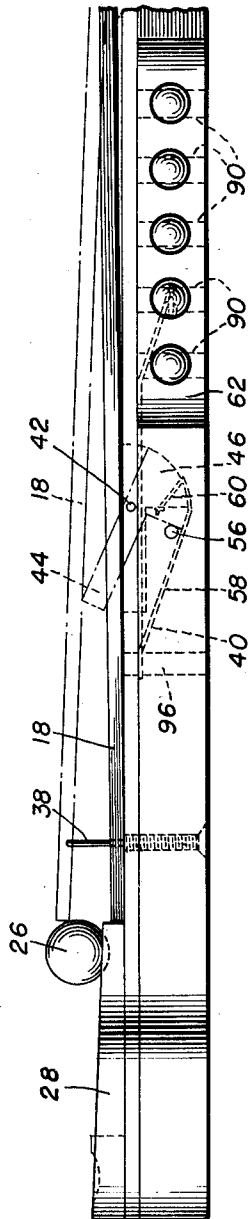
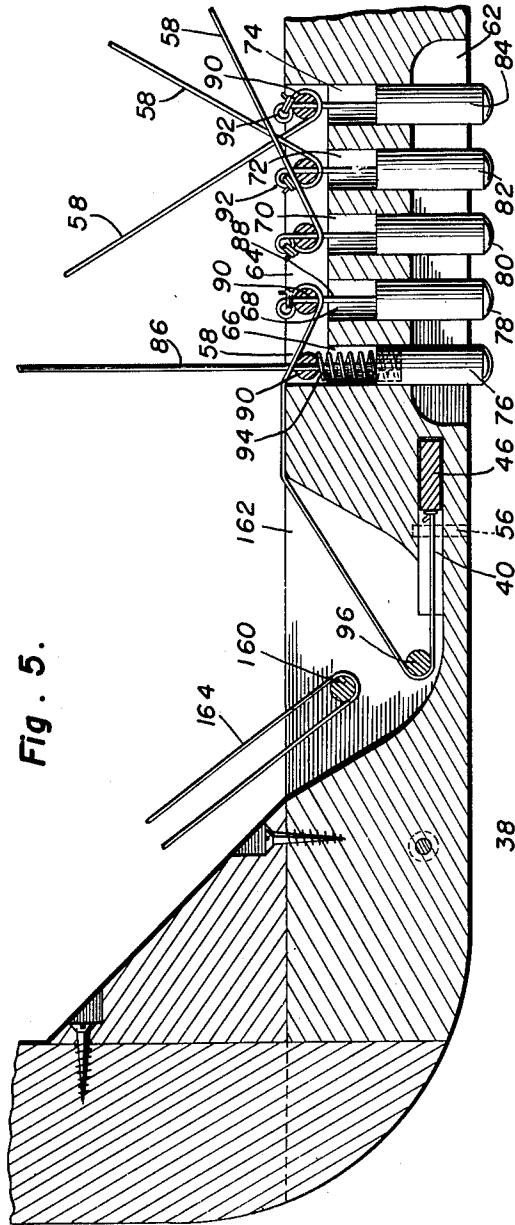


Fig. 5.



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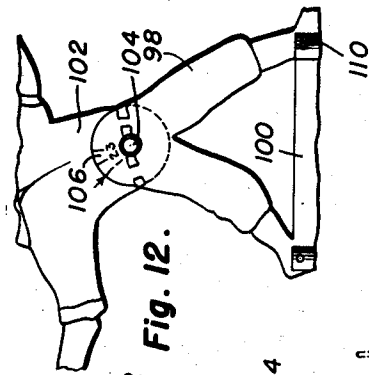


Fig. 12.

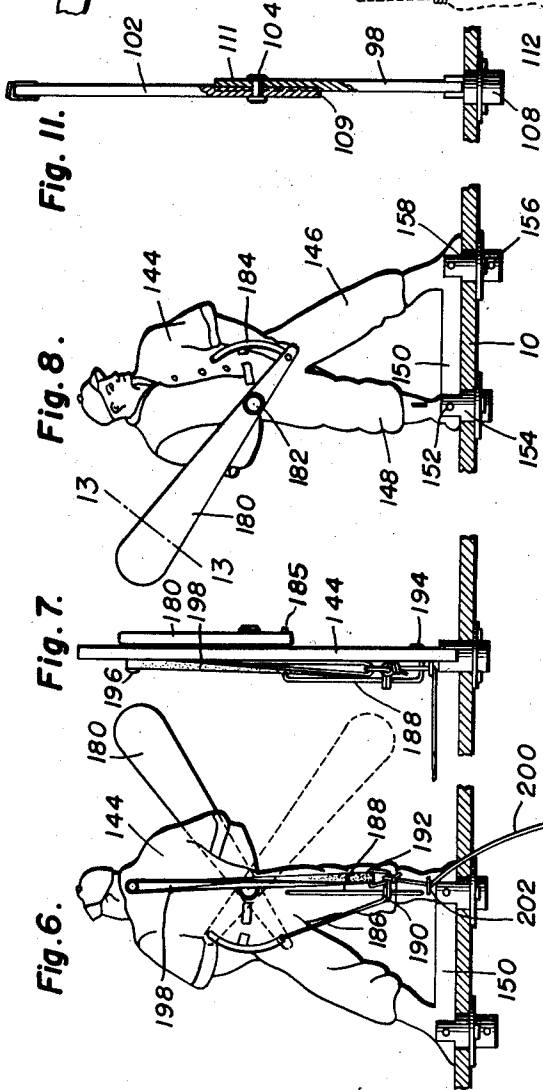


Fig. 9.

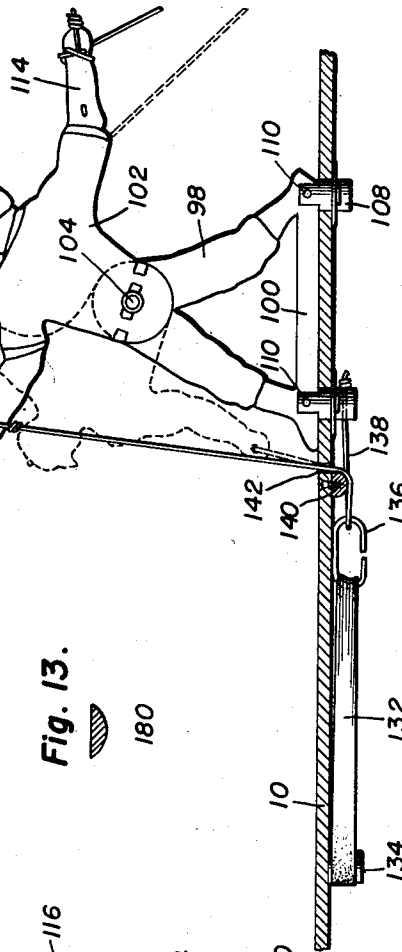


Fig. 13.

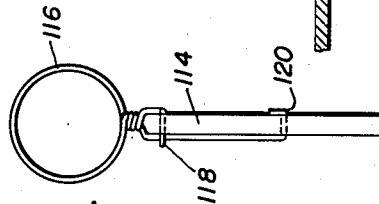


Fig. 10.

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## UNITED STATES PATENT OFFICE

2,534,468

## TABLE BASEBALL GAME

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Application March 25, 1947, Serial No. 736,947

20 Claims. (Cl. 273—89)

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This invention consists of novel and useful improvements in a table baseball game and more specifically provides a game which closely simulates the actual play of a game of baseball, including individual control of the pitching and batting mechanism as well as base running.

A primary purpose of this invention resides in providing a game which shall realistically and in minute detail closely simulate the play of an actual game of baseball; and which shall afford interest and enjoyment to both the participant and spectators by affording physical coordination in manipulating the various apparatus forming a part of the game.

An important object of the invention resides in providing a baseball game which permits operation of mechanism simulating the actual base running in a game of baseball; wherein means is provided for selecting, effecting and controlling manipulation of the base runners and play about the bases and base paths in close realistic mimicry of an actual baseball game.

A further important object of the invention consists in providing a game apparatus for simulating the play of a game of baseball wherein a projectile may be propelled by a pitcher under the direct and varying controls of a player.

Yet another important object of the invention consists in providing an apparatus simulating the appearance and performance of a batter, and wherein is provided means for controlling the path of travel of the bat, its timing and force of the batting stroke.

A still further purpose of the invention is to provide a baseball playing apparatus for selectively propelling and selectively batting a missile, under the direct control of a pair of players.

These, together with various ancillary objects to be more specifically set forth hereinafter, are attained by the present invention, one embodiment of which has been illustrated, by way of example, in the accompanying drawings, wherein:

Figure 1 is a perspective view of the game board and illustrating certain features of operation of the same;

Figure 2 is a top plan view of the board, certain concealed parts being indicated by dotted line construction;

Figure 3 is a bottom plan view of the board;

Figure 4 is a side elevational view showing the arrangement of the first base line and associated operating mechanism;

Figure 5 is a horizontal sectional view through the portion of the board illustrated in Figure 4;

Figure 6 is a fragmentary detail view from the

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rear of the batting mechanism, parts being shown in section;

Figure 7 is a view taken at right angles to Figure 6 from the right side thereof;

Figure 8 is a front view of the element of Figure 6;

Figure 9 is a fragmentary rear elevational view of the pitching mechanism, an alternative position being indicated by dotted lines;

Figure 10 is a front elevational detail view of a portion of the pitching mechanism of Figure 9;

Figure 11 is an end elevational view taken from the right side of Figure 9;

Figure 12 is a fragmentary front elevational view of Figure 9, showing certain structural details thereof;

Figure 13 is a transverse sectional view taken substantially upon the line 13—13 of Figure 8 and showing the contour of the bat,

Figure 14 is a perspective view of an element of the base path operating mechanism; and

Figure 15 is a view in elevation of the components of the pitcher.

Referring now more specifically to the accompanying drawings, wherein like numerals indicate similar parts throughout the various views, attention is directed first to Figure 1 wherein 10 designates a board of generally square or diamond-shaped configuration in close simulation of a baseball diamond, and upon which are operatively mounted an articulated pitching mechanism 12 simulating a pitcher, a batter's batting mechanism 14 simulating a batter, a back stop 16 and a series of channel-like members 18, 20, 22 and 24 corresponding to the base paths leading to first base, second base, third base and home respectively.

It should be here explained that it is intended that the pitcher shall actually deliver a spherical projectile, which may conveniently consist of a ping pong ball or the like realistically colored to simulate a base ball, in a trajectory through the air which may be selectively controlled as desired; and that a batting mechanism is provided with a bat for striking at the ball, wherein the arc of the bat may be regulated as desired, as well as the time of the batting stroke and the force thereof. Further, the back stop 16 may be suitably secured in detachable manner to the board 10 behind a marker simulating a home plate, for intercepting a ball passing the batter and returning the same upon the playing field. It is contemplated that a pitched ball shall be struck by the bat and driven off the board, where the same may be played by a group of players representing

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outfielders of the game and handled in the same manner as a batted ball in a baseball game.

Attention is first directed to the base running construction and mechanism set forth best in Figures 1-5 and 14. As seen by the drawings, a peripheral groove is provided upon the upper surface of the board and at the margin thereof, to provide the above mentioned series of base paths 18, 20, 22 and 24, upon which are adapted to roll marbles 26 representing base runners, these pieces being operated under the influence of gravity in a manner to be now set forth. Each of the four corners of the board is provided with a quadrant shaped section of grooved track 28, for guiding the balls or runners 26 around the corners from one base path into the adjacent path. As clearly shown in Figure 1, and again in Figure 4, the quadrant shaped tracks 28 are downwardly inclined in the direction of travel around the base paths. Each of the four base paths, above mentioned, are pivoted by a transversely extending pin 38 to the approach side of the quadrants 28, for vertical movement relative thereto. This pivotal connection is better shown in Figure 2, where it may be seen that the approach side of each of the quadrants 28 is provided with a central axially extending tongue 32 receivable in a rearward and adjacent notch 34 in the corresponding track section. As will be seen in Figure 1, each of the four base path tracks are of identical construction and are wedge-shaped or of varying vertical thickness throughout their length. Thus, the end of a track which is pivoted to a quadrant 28 is of considerable vertical height whereby the same may be flush with the adjacent surface of the quadrant, while the opposite end of that track when in its lowered position is of sufficient thickness to be substantially flush with the rearward or thin edge of the wedge-shaped quadrant. The leading edge or end of each of the base path tracks is apertured as at 36 for free vertical guided movement upon an upwardly extending pin 32 carried by the playing board 10.

The pin 38 extends a sufficient distance above the surface of the track when the latter is in its lowered position, to constitute an abutment or stop for a base running ball, whereby the latter may be retained adjacent its proper base upon the end of the track in position for travel there along. Obviously, when a base runner 26 is so positioned, proper elevation of the track will raise the latter as well as the base runner until the latter clears the upper end of the stop pin 38, as shown in the home plate position of Figure 1, whereby the ball 26 is free to roll under the influence of gravity down the base path, around a quadrant to the next base represented by a stop pin. Traveling thus from pin to pin, a ball may complete the circuit of the base paths and again arrive at the home plate position, thus scoring a run as in an actual game of baseball.

It should be here noted that means are provided for manipulating the base paths, and raising and lowering the same whereby a base runner may be released to travel down the base path in clear simulation of base running in an actual game of baseball, as when advancing on a hit, sacrifice, error, or out, or when stealing a base or the like. It is intended that a ball put in play may be handled by the various participants in a game manually in exact simulation of corresponding plays in a game of baseball, whereby a runner may be put out, trapped between bases or the like.

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In order to raise or lower the base path tracks and thus control the travel of the base runners, the following control mechanism is employed. Adjacent each of the leading edges of a base track and the stop pin 38 thereof, the base or game board 10 is provided with recesses 40 underlying the base paths, an elevating lever 44, shown in Figure 14, being journaled therein by a transverse pin 42 for vertical movement to raise and lower the corresponding end of the base path. There are thus four track elevating levers 44 as shown in Figure 2, each provided with an individual operating means. As shown in Figures 4 and 14, the operating lever 44 has a segmental shaped rear extremity provided with an arcuate surface 48 and is provided with a laterally extending bore 50 for the reception of the above mentioned fulcrum or pivot pin 42. A peripheral groove 52 is disposed in the arcuate surface 48, terminating at a radial shoulder 54, which shoulder is adapted to cooperate with a transversely disposed stop pin 56 for limiting the upward movement of the lever 44 and consequently the extent of elevation of the track, to prevent the same from becoming engaged or lifted off of the guide and stop pins 38 by this mechanism.

A control cable 58 has its extremity disposed in the recess 40, lying in the above mentioned groove 52, and extending through a bore 60 from said groove into the abutting surface or shoulder 54 of the lever, where the same is secured in any desired manner. Thus, upon tensioning of the cable 58, the lever 44 will be caused to rotate in a clockwise direction about its fulcrum pin 42, as viewed in Figure 4. When tensioning of the cable ceases, the weight of the base path track, and of the lever is relied upon to restore the parts to their lowered or normal position, although suitable spring or resilient means may be provided to facilitate this action, as deemed desirable.

Referring now more specifically to Figure 5, it will be seen that the side of the board beneath the first base path 18 is laterally recessed or cut-away as at 62 upon its outer surface and at 64 upon its inner surface, these recesses being connected by a plurality of laterally disposed cylindrical bores 66, 68, 70, 72, and 74. A series of plungers 76, 78, 80, 82 and 84, are slidably guided for reciprocation in these bores, each plunger being provided with a rigidly and axially extending pin or rod indicated at 86 for the plunger 76 and at 88 for the other four plungers. These pins or rods extend through transverse bores in vertically positioned guide pins 90 suitably positioned in their recess 64. The outer extremity of the pins 88 are looped upon themselves to provide an eye 92 upon the opposite side of the pins 90, and at extremity of each of the above mentioned cables 58 is secured in these eyes. As will be noted, the plunger 76 is provided with a coil spring 74 surrounding the rod 86 between the plunger and the vertical pin 90, for yieldingly urging the plunger outwardly of the bore 66 for a purpose to be later set forth.

It will be noted that the ends of the cables 58 are wound partially about the pins 90 on the side thereof adjacent the plungers, whereby these pins constitute guides for the cables so that when the plungers are forced inwardly of their cylindrical bores, the cables will be tensioned in an obvious manner. Suitable guide means are provided throughout the length of the cables 58, as desired, for preventing tangling of the same and guiding the cables in their tensioning and slackening

movements. These guides preferably include vertically disposed guide pins 96 adjacent each of the levers 44, for imparting straight line pull upon said levers.

It may thus be seen by reference to Figures 2 and 3, that the control buttons 78, 80, 82 and 84, respectively control the levers for elevating the base paths 18, 20, 22 and 24. It will, therefore, be seen that any one or all of the base paths may be selectively controlled by the fingers of the operator, whereby all of the base runners may be released, or a particular runner may be permitted to advance two or more bases as the play of the game dictates.

Attention is next directed to the pitching mechanism and its control means, as shown in Figures 1, 2, 9-12. The pitcher indicated generally at 12 consists of two articulated members comprising a trunk 98 of generally triangular shape and having a base piece 100, and a torso section 102 pivotally connected to the trunk at 104. These members may be formed of any suitable material, such as heavy cardboard, metal or the like, and it will be noted that the adjacent ends thereof are rounded as indicated in Figures 9 and 12. Suitable indicia 106 are provided upon appropriate portions of the pivoted members 98 and 102, for indicating the relative angular arrangement of these members for a reason to be set forth hereinafter. The lower portion 98 of the pitcher is detachably secured in fixed position upon the playing surface 10 by means of plugs 108 extending upwardly through suitable apertures in the board 10 and provided with slots receiving the base portion 100, the latter being retained by means of transversely disposed pins 110. The torso 102 of the pitcher is provided with a pair of oppositely disposed arms 112 and 114 whereby said torso comprises a double arm lever. The arm 114, as best shown in Figure 10, is provided with a ball retaining and throwing member comprising a loop of wire 116 whose extremities 118 and 120 are rigidly anchored in appropriate transversely disposed bores in the arm 114, from which the member 116 axially extends. A control cord is securely attached as at 122 to the arm 114 and has one end 124 extending laterally through a transverse bore in the margin of the game board 10, and it is retained therein as by a bead 126, while the other end 128 extends through a similar bore and is provided with a bead 130. It is intended that the bead 126 be so adjusted, that the cord 124 will be of appropriate length to limit the extent of the forward movement of the torso portion of the player, to thereby limit the hurling stroke of the pitcher. Obviously, the bead 126 may be adjusted upon the board to vary this stopping action as found to be desirable. The cord 128 and bead 130 are manipulated to rotate the torso in a clockwise direction about the pivot pin 104, to cock the pitcher against a spring tensioning means, to be later set forth, for determining the amount of force imparted to the ball. For this purpose, it will readily be seen that the indicia 106 constitute a ready reference means for evaluating the amount of tension and potential energy applied to the pitcher, and therefore regulating the speed of the ball. Obviously, appropriate adjustment of the bead 126 and stop cord 124 will determine the height of the baseball as it passes the batter.

The tensioning means for the pitcher is indicated best in Figure 9, wherein it may be seen

that a rubber band or other tensioning member 132 is entrained over a support peg 134 extending below the surface of the board 10, and engages a hook 136. A cable 138 is appropriately anchored at one end to the board 10, as for example to one of the above mentioned supporting plugs 138, is looped through the link or hook member 136 and then extends over a suitable guiding bridge 140 and upwardly through a slot 142 for engagement with the arm 112. It will be readily seen that the tension of the member 132 operating through the cable 138, imparts a bias tending to rotate the torso of the pitcher in a counterclockwise direction as viewed in Figure 9, which tension is relied upon, when the manual control cord 128 is released, to cause the pitcher to hurl the ball from the receiver 116 as above mentioned. The tension imparted to the pitcher may be varied in suitable ways, as for example, by suitably adjusting the fulcrum pin 134 to varying distances from the link 136, by providing a plurality of rubber bands or the like 132 between the link 136 and the fulcrum pin 134, to vary the bias imparted to the cable 138. From the foregoing, it will be readily understood that the force of the delivery of the pitcher may be varied; that the timing of the delivery may be varied to regulate the height of the ball delivered; and that the speed of delivery may be easily varied through consecutive plays by proper manipulation of the control or actuating cord 128 with reference to the indicia 106.

Attention is now directed to the construction of the batter and its operating mechanism, as shown best in Figures 1-3, 6-8. The batter 14, as shown best in Figures 7 and 8 consist of a one-piece construction of suitable cardboard, wood or metallic nature, arranged in the form of a batter and shown at 144. The batter is preferably provided with forwardly and rearwardly positioned legs 146 and 148 in proper batting stance, these legs being connected at the feet by a base member 150. The rear leg 148 is detachably connected as by a pin 152, a cylindrical plug 154 extending upwardly through the surface 10 of the board, and constitutes a pivot point or axis of oscillation for the batter. The forward leg 146 of the batter is similarly pivoted to a cylindrical plug 156 likewise extending through the board 10, this plug being adapted for arcuate movement in a guide slot 158 appropriately positioned in the board 10. The arcuate guide groove 158 is so positioned that the batter may assume natural position when awaiting a pitch, and may then pivot about the fixed axis 154 throughout the normal batting stroke. A novel tensioning mechanism is provided for causing the batter's stroke, while a latch means is provided for cocking or maintaining the batter in position awaiting a pitch. For this purpose, a vertically extending anchor pin 160 is secured to the undersurface of the board 10 within the recess 162, and an elastic or rubber band or the like 164 is anchored to the peg 160, and its other end engages a split hook 166. This construction is identical with the members 132, 134 and 136 of Figure 9 above mentioned. A recess is provided below the third base path 24 and a vertical peg or pin 170 is disposed therein. A cable 172 has one end secured to the cylindrical plug 156 riding in the slot 158, is entrained over the cylindrical surface of the peg 170, extends through the hook 166 and has its other extremity secured to the peg. The construction is such, that the cable 172 and resilient means 164 are extended

or shortened in accordance with the operation or stroke of the batter. These members therefor resiliently urge the batter in a position to complete the stroke, and the batter is retained in proper position to start his batting stroke by means of a latching lever 174 having a hook portion 176 for engaging the above mentioned cylindrical peg 156 and a fulcrum 178. At its other end, the lever 174 engages the rod 86, under the control of pushbutton 76. It may thus be seen that the coil spring 94 urges the rod 86, lever 174 and catch 176 into position to engage the peg 156 to latch the batter against movement in response to the urge of the resilient means 164. Upon manipulation of the plunger 76, the catch is withdrawn and the batter makes his arcuate stroke. The extent of this stroke is, of course, determined by the end of the arcuate slot 153, and after the stroke the batter is reset by hand with the spring 94 causing the latch to engage and restrain the batter in cocked position.

A lever 180 in a form to simulate a bat, as shown in Figures 8 and 13, is pivoted as at 182 to the front of the figure 144. Preferably, the forward surface of the bat is convex while the rear surface is a plain surface, whereby the latter may freely slide in guided and supported relation upon the front of the batter, while the former presents a rounded surface for batting a ball, to more closely simulate the batting of a ball in a game. An arcuate slot 184 struck upon a radius about the pivot 182 as a center is provided, and a laterally extending arm 185, of a link 186 is received in a suitable aperture at the end of the bat 180, this arm extending into the guide slot 184, the downwardly extending link 186 being slidably and guidingly received upon a vertical guide pin 188, by means of a coil or bight portion 190. The extremity of the link 186 is turned upon itself to provide an eye 192, it being understood that this entire assembly may conveniently be formed of stiff wire or the like. The upper and lower ends of the guide wire or rod 188 of right angularly intumed portions 184 adapted to be secured vertically upon the rear surface of the batter in vertical alignment with the rear or pivot leg 148. Upon the back of the batter, in vertical alignment with the axis of rotation of the batter and adjacent the upper portion thereof, is provided an anchor pin 196 over which is stretched an elastic, rubber band or the like 198 whose lower extremity is received in the eye 192, for constantly biasing the link 186 upwards, thereby urging the bat into its downward or dotted line position as shown in Figure 6. In order to selectively elevate the bat as desired, a cable 200 is provided, extending through an eyelet 202 carried by the back of the batter's figure, and connected with the eye 192.

Attention is again directed to the pitching mechanism and in particular to Figures 11, 13 and 15. It will be seen that the trunk and torso members 98 and 102 are recessed or routed on their contiguous, relatively swinging surfaces 99 and 103 respectively, these surfaces being pivotally connected by the fastener 104 extending through bores 101 and 115 therein.

As shown best in Figure 15, the surfaces 99 and 103 have arcuate shaped flanges or shoulders 105 and 107 for respectively receiving and journaling the rounded extremities 109 and 111 respectively of the members 98 and 102. By means of this construction the thrust imposed on the members 98 and 102, by the tensioning and actuating means, is received and carried by

the large bearing surfaces 105, 107, 109 and 111, which are all arcs having the spindle 104 as a center, rather than on spindle 104 which thus serves merely to retain the parts in pivotal relation. The doubled thickness as well as the enlarged bearing surfaces greatly reinforce the mechanism as its point of greatest strain and wear, and since the pitching mechanism is actuated most frequently in this game, this is an important desideratum.

As shown in Figures 1-3, the bat controlling cord 200 extends through the side of the rim of the board, whereby the same may be manipulated by the operator during a game. It should be here noted that the entire bat elevating and lowering mechanism is disposed in longitudinal alignment with the axis about which the batter pivots, whereby the angular adjustment of the bat is not effected during the batter's stroke.

It will be readily understood, that the force of the batter's stroke may be properly regulated by decreasing or increasing the number of rubber or elastic bands 164 which power the stroke.

Obviously, the batter is under the complete control of an operator or participant in the game during the play of a game of baseball, whereby the batter may be manipulated to raise or lower the bat, or time his stroke, in accordance with the wishes of the operator, thereby permitting the exercise of judgment and coordination of eye and muscle by the batter's operator. Similarly, the control of the pitcher provides the same elements of participation in the sport that are present in a real game of baseball, whereby the actual physical execution of baseball plays, the planning of strategy, the coordination of eye and muscle are all exercised, but on a reduced scale, as in a real game of ball.

Obviously, numerous modifications and variations will be readily apparent to those skilled in the art after consideration of the foregoing specification and drawings, and accordingly it is not desired to limit the invention to the exact construction shown and described, but all suitable modifications may be resorted to falling within the scope of the appended claims.

What I claim is:

1. In a baseball game, a supporting base, a ball throwing mechanism mounted on said base, said mechanism including a manikin having pivoted upper and lower portions respectively simulating the torso and trunk of a baseball pitcher, said upper portion having forwardly and rearwardly extending lever arms rigidly attached thereto, a ball holding means carried by one of said arms, resilient means engaging the other arm and biasing said upper section in one direction and a manual control secured to said upper section for moving the same in another direction.

2. The combination of claim 1 wherein said control is secured to said one lever arm.

3. The combination of claim 1 wherein said control is secured to said one lever arm and comprises a flexible cable, and stop means on said cable for limiting the movement of said movable section under the bias of said resilient means.

4. The combination of claim 3 wherein said cable is slidable through a bore in said base, said stop means comprising a button on said cable engageable with said bore.

5. The combination of claim 1 wherein said control comprises a cable secured intermediate its ends to said movable section, one end of said cable comprising a moving agent for overcoming

ing the bias of said resilient means and the other end of said cable having a stop means for limiting movement of said movable section under the bias of said resilient means.

6. The combination of claim 5 wherein said other end is slidable through a bore in said base and a member on said other end engageable with said base to constitute said stop means.

7. The combination of claim 6 wherein said one end of said cable slidably extends through a second bore in said base for manual operation exteriorly of said base.

8. The combination of claim 1 wherein said ball holding means comprising a wire loop, the ends of which are secured to said one lever arm.

9. The combination of claim 1 wherein said resilient means includes a flexible member secured at one end to said movable section and extending beneath said base, and a spring member attached to said flexible member beneath said base.

10. The combination of claim 9 wherein said base has an aperture spaced forwardly of the manikin through which said flexible member is slidably disposed, a guide block adjacent said aperture, said flexible member bearing on said guide block.

11. The combination of claim 1 wherein said resilient means includes a flexible member secured at one end to said movable section and extending beneath said base at a point forwardly of the manikin, and a spring member attached to said flexible member beneath said base, said spring member being attached to said flexible member intermediate the ends of said spring member, the other end of said spring member being anchored to said base.

12. The combination of claim 11 wherein said mechanism has a support plug secured thereto and extending below said base, the other end of said flexible member being anchored to said base by attachment to said support plug.

13. The combination of claim 1 wherein said resilient means includes a flexible member secured at one end to said movable section and extending beneath said base, and a spring member attached to said flexible member beneath said base, said spring member including an endless elastic band, a support for said band depending from said base and a connection for securing said band to said flexible member.

14. The combination of claim 1 wherein said sections have cooperating arcuate guide and bearing shoulders engageable with complementary arcuate bearing surfaces.

15. In a baseball game, a manikin ball player comprising a lower section forming the trunk of a ball player and having downwardly divergent leg portions, a supporting base, means for detachably and immovably securing said leg portions upon said base, said means comprising plugs extending through said base, means attaching said plugs to said legs, an upper section forming the torso of a pitcher pivoted at its lower portion to the upper portion of the lower section for movement in a vertical plane and a ball holder mounted on said upper section, the adjacent ends of said sections having vertical bearing surfaces in overlapping oscillating relation.

16. In a baseball game, a manikin ball player comprising a lower section forming the trunk of a ball player and having downwardly divergent leg portions, a supporting base, means for detachably and immovably securing said leg portions upon said base, said means comprising

plugs extending through said base, means attaching said plugs to said legs, an upper section forming the torso of a pitcher pivoted at its lower portion to the upper portion of the lower section for movement in a vertical plane and a ball holder mounted on said upper section, the adjacent ends of said sections having vertical bearing surfaces in overlapping oscillating relation, and arcuate bearing surfaces on said upper and lower sections.

17. In a baseball game, a manikin ball player comprising a lower section forming the trunk of a ball player and having downwardly divergent leg portions, a supporting base, means for detachably and immovably securing said leg portions upon said base, said means comprising plugs extending through said base, means attaching said plugs to said legs, an upper section forming the torso of a pitcher pivoted at its lower portion to the upper portion of the lower section for movement in a vertical plane and a ball holder mounted on said upper section, the adjacent end of one of said sections having an arcuate convex bearing surface and a complementary arcuate concave bearing surface on the other section.

18. In a baseball game, a manikin ball player comprising a lower section forming the trunk of a ball player and having downwardly divergent leg portions, a supporting base, means for detachably and immovably securing said leg portions upon said base, said means comprising plugs extending through said base, means attaching said plugs to said legs, an upper section forming the torso of a pitcher pivoted at its lower portion to the upper portion of the lower section for movement in a vertical plane and a ball holder mounted on said upper section, the adjacent end of one of said sections having an arcuate convex bearing surface and a complementary arcuate concave bearing surface on the other section, said concave bearing surface being laterally recessed in the side of said other section.

19. In a baseball game, a manikin ball player comprising a lower section forming the trunk of a ball player and having downwardly divergent leg portions, a supporting base, means for detachably and immovably securing said leg portions upon said base, said means comprising plugs extending through said base, means attaching said plugs to said legs, an upper section forming the torso of a pitcher pivoted at its lower portion to the upper portion of the lower section for movement in a vertical plane and a ball holder mounted on said upper section, the adjacent portions of said sections having overlapping vertical bearing surfaces, the adjacent ends of said sections terminating in arcuate convex bearings and complementary arcuate concave bearings on said sections for engagement with said convex bearings.

20. In a baseball game, a manikin ball player comprising a lower section forming the trunk of a ball player and having downwardly divergent leg portions, a supporting base, means for detachably and immovably securing said leg portions upon said base, said means comprising plugs extending through said base, means attaching said plugs to said legs, an upper section forming the torso of a pitcher pivoted at its lower portion to the upper portion of the lower section for movement in a vertical plane and a ball holder mounted on said upper section, the adjacent portions of said sections having overlapping vertical bearing surfaces, the adjacent ends of said sec-

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tions terminating in arcuate convex bearings and complementary arcuate concave bearings on said sections for engagement with said convex bearings, said concave bearings being formed in laterally recessed portions of said vertical bearing surfaces.

JAMES C. MITCHELL.

#### REFERENCES CITED

The following references are of record in the file of this patent:

#### UNITED STATES PATENTS

| Number  | Name     | Date          |
|---------|----------|---------------|
| 861,841 | Heitmann | July 30, 1907 |

| Number    |
|-----------|
| 861,843   |
| 1,047,657 |
| 1,147,087 |
| 1,197,940 |
| 1,344,378 |
| 1,573,182 |
| 1,793,969 |
| 1,850,675 |
| 2,080,958 |
| 2,294,035 |
| 2,349,892 |

12

| Name              | Date           |
|-------------------|----------------|
| Heitmann          | July 30, 1907  |
| Krancher          | Dec. 17, 1912  |
| Groh              | July 20, 1915  |
| Johnson           | Sept. 12, 1916 |
| Butler            | June 22, 1920  |
| Matha             | Feb. 16, 1926  |
| Simmons           | Feb. 24, 1931  |
| Jones             | Mar. 22, 1932  |
| Beasley et al.    | May 18, 1937   |
| Kellermann et al. | Aug. 25, 1942  |
| Vaughn            | May 30, 1944   |